Customer No. 26874
PATENT TRADEMARK OFFICE
Atty. Docket: 0100024.0523741

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Fiona C. Buchanan, et al.

: Paper No.:

Serial No.

10/814,760

: Group Art Unit:

Filed:

March 31, 2004

: Examiner:

For:

CRH AND POMC EFFECTS ON ANIMAL GROWTH

## **INFORMATION DISCLOSURE STATEMENT**

Mail Stop AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, Applicant herewith submits certain patent references and other information, which the Patent and Trademark Office may wish to consider in examining the above-identified application. The references are provided below, and are also listed on the attached Form PTO-1449.

Publication Date	Patentee or Applicant
Publication Date	Patentee or Applicant

## **Non-Patent Literature Documents**

BAGLEY C.P., et al. "Growth and Sexual Characteristics of Sucking Beef Calves as Influenced by Age at Castration and Growth Implants," J. Anim. Sci. 67: 1258-1264 (1989).

BARENDSE W., et al., "A Medium Density Genetic Linkage Map of The Bovine Genome," Mammalian Genome 8: 21-28 (1997).

BUCHANAN F.C., et al. "Two QTLs for Growth Map to Bovine Chromosome 14," 27<sup>th</sup> International Conference on Animal Genetics, Minneapolis, Minnesota (July 22-26, 2000).

- BUCHANAN F.C., et al., "Association of A Missense Mutation in The Bovine Leptin Gene with Carcass Fat Content and Leptin mRNA levels," Genet. Sci. Evol. 34: 105-116 (2002).
- BUCHANAN F.C., et al., "A Corticotrophin-Releasing Hormone Polymorphism Associated With Post-Natal Growth in Beef Cattle," Proceedings of the 7<sup>th</sup> World Congress on Genetics Applied to Livestock Production, CD-ROM communication no. 11-32 (2002 Paper).
- DUNN A.J., et al., "Physiological and Behavioral Responses to Corticotropin-Releasing Factor Administration: Is CRF a Mediator of Anxiety or Stress Responses?" Brain Research Reviews 15: 71-100 (1990).
- GROBET L., et al., "Molecular Definition of An Allelic Series of Mutations Disrupting the Myostatin Function and Causing Double-Muscling in Cattle," Mammalian Genome 9: 210-213 (1998).
- HOUSEKNECHT K.L., et al. "The Biology of Leptin: A Review," J. Anim. Sci. 76: 1405-1420 (1998).
- KRESS D. D., et al., "Beef Sire Expected Progeny Differences Calculated By Three Methods," J. Anim. Sci. 44: 195-202 (1977).
- LIU H-X, et al., "Exonic Splicing Enhancer Motif Recognized by Human SC35 Under Splicing Conditions," Molecular and Cellular Biology 20: 1063-1071 (2000).
- LIU H-X, et al., "A Mechanism For Exon Skipping Caused By Nonsense or Missense Mutations In BRCA1 and Other Genes," Nat Genet. 27: 55-58 (2001).
- MARSH D.J., et al., "Response of Melanocortin-4 Receptor-Deficient Mice to Anorectic and Orexigenic Peptides," Nat. Genet 21: 119-122 (1999).
- PRITCHARD L.E., et al., "Pro-Opiomelancortin Processing in The Hypothalamus: Impact on Melanocortin Signaling and Obesity," J. Endocrinol. 172: 411-421 (2002).
- ROCHE P.J., et al., "Nucleotide Sequence of The Gene Coding for Ovine Corticotropin-Releasing Factor and Regulation of Its mRNA Levels by Glucocorticoids," Gene 71: 421-431 (1988).
- SCHMUTZ S.M., et al., "Development of the Canadian Beef Reference Herd for Gene Mapping Studies," Theriogenology 55: 963-972 (2001).
- SAS, SAS/STAT User's Guide (Release 8.02), SAS Inst. Inc., Cary, NC (1998)
- SCHUMANN F.J., et al., "Prophylactic Tilmicosin Medication of Feedlot Calves At Arrival," Can. Vet. J. 31: 285-288 (1990).
- SHARPE P.M., et al., "Glucocorticoid Status in Growth, in: Buttery P.J. Haynes N.B., Lindsay D.B. (Eds.), "Control and Manipulation of Animal Growth, Butterworths, London: 207-222 (1986).
- SHIBAHARA S., et al., "Isolation and Sequence Analysis of The Human Corticotropin-Releasing Factor Precursor Gene," EMBO J. 2: 775-779 (1983).
- SZABO G., et al., "A Deletion in The Myostatis Gene Causes The Compact (Cmpt) Hypermuscular Mutation In Mice," Mammalian Genome 9: 671-672 (1998).
- THUE T.D., et al., "A SNP in The Cattle MC4R Gene is Used to Map MC4R to BTA 24," Anim. Genet. 32: 390-391 (2001).
- THUE T.D., et al., "Linkage Mapping of POMC to Bovine Chromosome 11," Anim. Genet. 34: 149 (2003).

Copies of non-patent literature cited are provided herewith. A copy of the cited reference "SAS/STAT User's Guide" was not available. No representation is made or intended that a prior art search has been made or that no better art than the listed is available. It is respectfully requested that the information be considered by the Examiner and made of record in the present application.

## **CERTIFICATE OF MAILING**

I hereby certify that a copy of this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop MISSING PARTS, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

August 6, 2004

Sarah Abraham

Respectfully submitted,

Fiona C. Buchanan, et al.

Steven I Coldstei

Registration No. 28,079

Attorney for Applicant(s)

FROST BROWN TODD LLC

2200 PNC Center

201 East Fifth Street

Cincinnati, Ohio 45202

(513) 651-6167

CinLibrary 0100024.0523741 1423588v.1

Substitute for Form PTO 71449M

Substitut	e for F	orm PTO	1449	AAR						
				CLOSU! PPLICA			Complete	e if Known		
						Applicat	tion No.	10/814,760		
lus	se as i	many shee	ts as	necessary)		Filing Da	ate	03/31/2004		
(uc	oc ao i	nany snoo	10 40	noccoscury,		First Named Inventor		BUCHANAN, Fiona C		
						Art Unit				
_	- 1					Examine	er Name			
Sheet		1	of	2		Attorney Docket No.		0100024.0523741		
					U.S	S. PATENT	DOCUMENTS			
Evaminar	Cite	DOCUMENT NUMBER 5.4		Dublic	ation Date	Name of Patentee or	Pages Columns Lines Where Pel	ovant		
Examiner initials	No.	Number-Kind code <sup>2</sup> (if known)			Publication Date Name of Patentee or MM-DD-YYYY Applicant of Cited Document		Pages, Columns, Lines, Where Relev Passages or Relevant Figures Appe			
		US-								
		US-								
					FORE	IGN PATE	ENT DOCUMENTS			
Examiner	Cite	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind  Pt					Pages, Columns, Lines, Where			
initials	No.			Public	Publication Date Name of Patentee or		Relevant Passages or Relevant			
		code <sup>5</sup> (if kn	iown)		MM-I	DD-YYYY	Applicant of Cited Document	Figures Appear	T <sup>6</sup>	
					L					
Examiner	Cite	1		NOI	N PATE	ENT LITER	RATURE DOCUMENTS		1	
initials	I locked name of the author (in CARITAL LETTERS) title of the article (when appropriate) title of the item (book						T <sup>6</sup>			
		BAGLEY C.P., et al. "Growth and Sexual Characteristics of Sucking Beef Calves as Influenced by Age at Castration and Growth Implants," J. Anim. Sci. 67: 1258-1264 (1989).								
		BARENDSE W., et al., "A Medium Density Genetic Linkage Map of The Bovine Genome," Mammalian Genome 8: 21-28 (1997).								
		BUCHANAN F.C., et al. "Two QTLs for Growth Map to Bovine Chromosome 14," 27 <sup>th</sup> International Conference on Animal Genetics, Minneapolis, Minnesota (July 22-26, 2000).								
	BUCHANAN F.C., et al., "Association of A Missense Mutation in The Bovine Leptin Gene Carcass Fat Content and Leptin mRNA levels," Genet. Sci. Evol. 34: 105-116 (2002).						105-116 (2002).	SEC		
	BUCHANAN F.C., et al., "A Corticotrophin-Releasing Hormone Polymorphism Associated W Post-Natal Growth in Beef Cattle," Proceedings of the 7 <sup>th</sup> World Congress on Genetics Applied Livestock Production, CD-ROM communication no. 11-32 (2002 Paper).							igress on Genetics Applied to	SEC	
DUNN A.J., et al., "Physiological and Behavioral Responses to Corticotropin-Releasing Facility Administration: Is CRF a Mediator of Anxiety or Stress Responses?" Brain Research Review 71-100 (1990).							Corticotropin-Releasing Factor	SEC		
		GROBE1	Γ L., ε	et al., "Molec			An Allelic Series of Muta Cattle," Mammalian Genon	tions Disrupting the Myostatin ne 9: 210-213 (1998).	SEC	

**EXAMINER SIGNATURE** 

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known		
	_			Application No.	10/814,760	
(4100	as many shee	oto ao n	ococcan/l	Filing Date	03/31/2004	
(use	as many snee	tis as n	ecessary)	First Named Inventor	BUCHANAN, Fiona C.	
				Art Unit		
				Examiner Name		
Sheet	2	of	2	Attorney Docket No.	0100024.0523741	

HOUSEKNECHT K.L., et al. "The Biology of Leptin: A Review," J. Anim. Sci. 76: 1405-1420	SEC
(1998).	
KRESS D. D., et al., "Beef Sire Expected Progeny Differences Calculated By Three Methods," J. Anim. Sci. 44: 195-202 (1977).	SEC
LIU H-X, et al., "Exonic Splicing Enhancer Motif Recognized by Human SC35 Under Splicing Conditions," Molecular and Cellular Biology 20: 1063-1071 (2000).	SEC
LIU H-X, et al., "A Mechanism For Exon Skipping Caused By Nonsense or Missense Mutations In BRCA1 and Other Genes," Nat Genet. 27: 55-58 (2001).	
MARSH D.J., et al., "Response of Melanocortin-4 Receptor-Deficient Mice to Anorectic and Orexigenic Peptides," Nat. Genet 21: 119-122 (1999).	SEC
PRITCHARD L.E., et al., "Pro-Opiomelancortin Processing in The Hypothalamus: Impact on Melanocortin Signaling and Obesity,' J. Endocrinol. 172: 411-421 (2002).	SEC
ROCHE P.J., et al., "Nucleotide Sequence of The Gene Coding for Ovine Corticotropin-Releasing Factor and Regulation of Its mRNA Levels by Glucocorticoids," Gene 71: 421-431 (1988).	SEC
SCHMUTZ S.M., et al., "Development of the Canadian Beef Reference Herd for Gene Mapping Studies," Theriogenology 55: 963-972 (2001).	SEC
SAS, SAS/STAT User's Guide (Release 8.02), SAS Inst. Inc., Cary, NC (1998)	SEC
SCHUMANN F.J., et al., "Prophylactic Tilmicosin Medication of Feedlot Calves At Arrival," Can. Vet. J. 31: 285-288 (1990).	SEC
SHARPE P.M., et al., "Glucocorticoid Status in Growth, in: Buttery P.J. Haynes N.B., Lindsay D.B. (Eds.), "Control and Manipulation of Animal Growth, Butterworths, London: 207-222 (1986).	SEC
SHIBAHARA S., et al., "Isolation and Sequence Analysis of The Human Corticotropin-Releasing Factor Precursor Gene," EMBO J. 2: 775-779 (1983).	SEC
SZABO G., et al., "A Deletion in The Myostatis Gene Causes The Compact (Cmpt) Hypermuscular Mutation In Mice," Mammalian Genome 9: 671-672 (1998).	SEC
THUE T.D., et al., "A SNP in The Cattle MC4R Gene is Used to Map MC4R to BTA 24," Anim. Genet. 32: 390-391 (2001).	SEC
THUE T.D., et al., "Linkage Mapping of POMC to Bovine Chromosome 11," Anim. Genet. 34: 149 (2003).	
BAGLEY C.P., et al. "Growth and Sexual Characteristics of Sucking Beef Calves as Influenced by Age at Castration and Growth Implants," J. Anim. Sci. 67: 1258-1264 (1989).	

**EXAMINER SIGNATURE** 

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.